Approved by the Regents May 21, 2015

PROMOTION RECOMMENDATION THE UNIVERSITY OF MICHIGAN MEDICAL SCHOOL DEPARTMENT OF SURGERY

DEPARTMENT OF CELL AND DEVELOPMENTAL BIOLOGY

Marina Pasca di Magliano, Ph.D., assistant professor of surgery, Department of Surgery, and assistant professor of cell and developmental biology, Department of Cell and Developmental Biology, Medical School, is recommended for promotion to associate professor of surgery, with tenure, Department of Surgery, and associate professor of cell and developmental biology, without tenure, Department of Cell and Developmental Biology, Medical School.

Academic Degrees:

Ph.D.

2002

Institute of Molecular Pathology, Vienna, Austria

M.S.

1996

University "Federico II," Napoli, Italy

Professional Record:

2008-present

Assistant Professor, Departments of Surgery and Cell and

Developmental Biology, University of Michigan

Summary of Evaluation:

Teaching: Dr. Pasca di Magliano is an excellent role model as demonstrated by her dedication to teaching, research expertise, outstanding oral communication style, and teamwork. She teaches and mentors undergraduate, graduate and medical students, post-doctoral fellows, residents, and junior faculty. Subjects taught as a Medical School course director and lecturer include: medical embryology, organogenesis, cell biology, and the student research seminar. She also lectures at the basic science conferences for surgery residents. As a member of the Cellular and Molecular Biology Graduate Program, Dr. Pasca di Magliano serves on thesis committees, preliminary exam committees and as a graduate advisor. Student evaluations rate her between 4 and 5 on a 5-point scale, commenting on her clear, informative illustrations and presentations, and well-organized lectures. She has meticulously refined her presentations for medical embryology and has received congratulations on her teaching from Dr. Roger Grekin, the Component I and II director. Over a dozen students have rotated in her laboratory receiving direction, support and motivation to become the next generation of research and clinical scientists.

Research: Dr. Pasca di Magliano's research interests include pancreatic cancer and inflammation. Her establishment of an inducible mouse model with pancreatic cancer that can be used in addressing how and when the KRAS oncogene acts during pancreatic tumorigenesis, is revolutionary and was published in a very elegant paper in the *Journal of Clinical Investigation*. This paper is rated "must read" by Faculty of 1000. Her ground-breaking work regarding Hedgehog signaling in pancreatic cancer, published in *Nature*, has received well over 1,100 citations. She is widely recognized as making seminal advances in her field with over 20 publications in prestigious journals such as *Public Library of Science (PLoS One)*, *Cancer Research*, *Gastroenterology* and *Cancer Immunology Research*, and she has four published book

chapters. Dr. Pasca di Magliano received the prestigious American Association for Cancer Research/Pancreatic Cancer Career Development Award. Grant funding has been consistently provided by institutional and national organizations including the current R01 from the NIH/NCI. Multiple invited speaking engagements at major scientific meetings and academic institutions clearly establish her as an expert in her field. She is highly recognized and respected by her peers and recruited to perform ad hoc reviewing for several national and international scientific journals, as well as funding organizations, including the Department of Defense. Dr. Pasca di Magliano is considered to be in the upper 1% amongst her peers for her seminal contributions in the field of pancreatic cancer research.

Recent and Significant Publications:

Collins MA, Bednar F, Zhang Y, Brisset J-C, Galbán S, Galbán CJ, Rakshit S, Flannagan KS, Volkan Adsay N, Pasca di Magliano M: Oncogenic Kras is required for both the initiation and maintenance of pancreatic cancer in mice. *Journal of Clinical Investigation* 122:639-653, 2012.

Collins MA, Brisset J-C, Zhang Y, Bednar F, Pierre J, Heist KA, Galbán CJ, Galbán S, Pasca di Magliano M: Metastatic pancreatic cancer is dependent on oncogenic Kras in mice. *PLOS ONE* 7:e49707, 2012. doi:10.1371 2012.

Zhang Y, Yan W, Collins MA, Bednar F, Rakshit S, Zetter BR, Stanger BZ, Chung I, Rhim AD, Pasca di Magliano M: Interleukin-6 is required for pancreatic cancer progression by promoting MAPK signaling activation and oxidative stress resistance. *Cancer Research* 73:6359-6374, 2013.

Collins MA, Yan W, Sebolt-Leopold J, Pasca di Magliano M: MAPK signaling is required for dedifferentiation of acinar cells and development of pancreatic intraepithelial neoplasia in mice. *Gastroenterology* 146:822-834, 2014.

Zhang Y, Yan W, Mathew E, Bednar F, Wan S, Collins MA, Evans RA, Welling TH, Vonderheide RH, Pasca di Magliano M: CD4⁺ T lymphocyte ablation prevents pancreatic carcinogenesis in mice. *Cancer Immunology Research* 2:423-435, 2014.

Service: Dr. Pasca di Magliano is an extremely talented teacher and researcher and has significant knowledge to contribute while serving on committees for the Surgery Academic Development, Cell and Developmental Biology Committees on Business Development and Graduate Recruitment, Center for Organogenesis Seminar, Medical School Innovation, and Program in Biomedical Sciences Admissions. She is the co-director of the CMB-850 Student Research Seminar. Dr. Pasca di Magliano serves as the conference co-organizer and session chair for the "Hedgehog 2014" at the University of Michigan and the NIH/NIDDK Symposium "Advances in Acute and Chronic Pancreatitis." She is an active member of the American Association of Cancer Research and American Pancreatic Association.

External Reviewers:

Reviewer A: "Her work has been consistently at the forefront of the field, and her efforts to define mechanisms that underlie the complex biology of pancreatic cancer have yielded important insights into the underpinning of the disease."

Reviewer B: "She has positioned herself as a current leader in the pancreatic cancer research field very early in her career and is poised to lead us all well into the future. I have no doubt that she would be a welcome addition to the faculty at any research institution in the world. You are fortunate to have her on your faculty in the Department of Surgery."

Reviewer C: "Marina is one of the top two or three junior/mid-career investigators in the field of pancreatic cancer research in the world. Since joining the UM faculty in 2008, she has completed a remarkable body of work characterized by the highest standards of both academic rigor and creativity."

Reviewer D: "...I consider Dr. Pasca di Magliano to be in the upper echelon amongst her peers. Indeed, given Dr. Pasca di Magliano's research accomplishments, her stature in the field, and her history of successful grant funding, she would readily be awarded tenure [at my institution]."

Reviewer E: "Marina is, without question, one of the brightest stars in the pancreatic cancer research galaxy of this country...She is an institutional treasure at Michigan, and someone who would effortlessly be promoted to this rank at other academic centers of excellence."

Reviewer F: "Overall, Dr. Pasca di Magliano has already established herself as a leader in the pancreatic cancer field, with a track record not only of productivity but of innovation as well, and her publications stand out for their creativity and high translational relevance...I consider Dr. Pasca di Magliano a trailblazer in pancreatic cancer research, and she is one of a small number of colleagues whose papers I will immediately read upon publication."

Summary of Recommendation:

Dr. Marina Pasca di Magliano is a brilliant researcher and has made seminal contributions to the field of pancreatic cancer research. She is positioned as a highly respected leader in this field. I wholeheartedly support Marina Pasca di Magliano, Ph.D. for promotion to associate professor of surgery, with tenure, Department of Surgery, and associate professor of cell and developmental biology, without tenure, Department of Cell and Developmental Biology, Medical School

James O. Woolliscroft, M.D.

Dean

Lyle C. Roll Professor of Medicine